

(FILE 'HOME' ENTERED AT 11:21:49 ON 07 JUL 2000)

FILE 'REGISTRY' ENTERED AT 11:21:57 ON 07 JUL 2000

L1 1 S SECKADEK/SQSP  
L2 0 S CCSSHPACSGKYN/SQSP  
L3 6 S GCCSHPACS/SQSP  
L4 5 S CCXYGKCRBY/SQSP  
L5 2 S CKYYSKYC/SQSP  
L6 2 S STSCMEAGSYCGSTTRI/SQSP  
L7 11 S VAKMAA/SQSP  
L8 0 S ESEEGSNATKKP/SQSP  
L9 1 S ESEEGGS/SQSP

FILE 'CAPLUS' ENTERED AT 11:29:06 ON 07 JUL 2000

L10 1 S L1  
L11 3 S L3  
L12 4 S L4  
L13 2 S L6  
L14 11 S L7  
L15 1 S L9

FILE 'REGISTRY' ENTERED AT 11:33:19 ON 07 JUL 2000  
L16 5 S SEEGSNATK/SQSP

FILE 'CAPLUS' ENTERED AT 11:33:52 ON 07 JUL 2000  
L17 3 S L16

FILE 'MEDLINE, BIOSIS' ENTERED AT 11:43:10 ON 07 JUL 2000  
L18 4 S L1 OR L3 OR L4 OR L6 OR L7 OR L9 OR L16

FILE 'USPATFULL, WPIDS' ENTERED AT 11:45:35 ON 07 JUL 2000  
L19 5 S L1 OR L3 OR L4 OR L6 OR L7 OR L9 OR L16

ANSWER 1 OF 1 CAPLUS COPYRIGHT 2000 ACS

TI Conotoxins having acetylcholine receptor binding properties and their use in receptors assays and pharmaceuticals

PY 1995  
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L11 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2000 ACS  
AN 1996:333071 CAPLUS DN 125:28184

TI Conotoxin peptides

IN Olivera, Baldomero M.; Cruz, Lourdes J.; Hillyard, David R.; McIntosh, J. Michael; Santos, Ameurfin D.

PA University of Utah Research Foundation, USA  
SO U.S., 32 pp. Cont.-In-part of U.S. 5, 432, 155.

PATENT NO.

KIND DATE

CODEN: USXXAM DT Patent LA English FAN.CNT 7  
APPLICATION NO. DATE

PI US 5514774 A 19960507 US 1993-137800 19931019  
 US 5432155 A 19950711 US 1993-84848 19930629  
 CA 2165566 AA 19950112 CA 1994-2165566 19940627  
 WO 9511256 A1 19950427 WO 1994-US11927 19941019

W: AU, CA, JP  
 RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE  
 CA 2172989 AA 19950427 CA 1994-2172989 19941019  
 AU 9510831 A1 19950508 AU 1995-10831 19941019  
 AU 681216 B2 19970821  
 EP 728146 A1 19960828  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE  
 JP 10509415 T2 19980914 JP 1994-512187 19941019

US 5700778 A 19971223 US 1995-458499 19950602  
 US 5589340 A 19961231 US 1995-477383 19950607  
 US 5595972 A 19970121 US 1995-487174 19950607  
 US 5633347 A 19970527 US 1995-480750 19950607  
 AU 9735197 A1 19971120 AU 1997-35197 19970821  
 AU 699078 B2 19981119

PRAI US 1993-84848 19930629  
 US 1993-137800 19931019  
 WO 1994-US11927 19941019

AB The invention is directed to A-lineage conotoxin peptides, which are conotoxin peptides that have strong homol. in the signal sequence and the 3'-untranslated region of the genes coding for these peptides to the sequences in the  $\alpha$ -conotoxin peptides. The A-lineage conotoxin peptides include the  $\alpha$ -conotoxin peptides, the  $\alpha$ -conotoxin-like peptides, and the  $\alpha$ 3/5 conotoxin peptides. The  $\alpha$ -conotoxin-peptides generally share a "core" sequence motif. This core sequence is termed the  $\alpha$ 3/5 core and is represented as Cys-Cys-Xaa-Xaa-Xaa-Cys-Xaa. The  $\alpha$ -conotoxin-like peptides generally share a core sequence termed the  $\alpha$ 4/7 core and is represented as Cys-Cys-Xaa-Xaa-Xaa-Xaa-Cys-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Cys. The  $\kappa$ -conotoxin peptides generally have a core sequence termed the  $\kappa$ 7/2/1/3 core and is represented as Cys-Cys-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Cys-Xaa-Cys-Xaa-Xaa-Xaa-Cys. The peptide groups within the A-lineage conotoxin peptides have diverse pharmacol. activity. The  $\alpha$ -conotoxin peptides are potent inhibitors of synaptic transmission at the neuromuscular junction; these peptides are generally nicotinic acetylcholine receptor blockers. The  $\kappa$ -conotoxin peptides have activities against voltage-sensitive potassium or sodium channels.

L11 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2000 ACS  
 AN 1995:797288 CAPLUS DN 124:48165  
 TI Conotoxin peptides of Conus striatus  
 IN Olivera, Baldomero M.; Cruz, Lourdes J.; Hillyard, David R.; McIntosh, J. Michael; Santos, Ameurfin D.  
 PA University of Utah Research Foundation, USA  
 SO PCT Int. Appl., 66 pp. CODEN: PIXXD2 DT Patent LA English FAN.CNT 7  
 PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 9511256 A1 19950427 WO 1994-US11927 19941019  
 W: AU, CA, JP  
 RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE  
 US 5514774 A 19960507 US 1993-137800 19931019  
 AU 9510831 A1 19950508 AU 1995-10831 19941019  
 AU 681216 B2 19970821  
 EP 728146 A1 19960828  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE  
 JP 10509415 T2 19980914 JP 1994-512187 19941019  
 PRAI US 1993-137800 19931019  
 US 1993-84848 19930629  
 WO 1994-US11927 19941019

AB The invention is directed to A-lineage conotoxin peptides, which are conotoxin peptides that have strong homol. in the signal sequence and the 3'-untranslated region of the genes coding for these peptides to the sequences in the  $\alpha$ -conotoxin peptides. The A-lineage conotoxin peptides include the  $\alpha$ -conotoxin peptides, the  $\alpha$ -conotoxin-like peptides and the  $\kappa$ -conotoxin peptides, described further below. The  $\alpha$ -conotoxin peptides generally share a "core" sequence motif. This

[illegible]

L11 ANSWER 3 OF 3 CAPIUS COPYRIGHT 2000 ACS  
TI Conotoxins having acetylcholine receptor binding properties and their use in receptor assays and pharmaceuticals  
PY 1995

1995  
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1997  
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112 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2000 ACS  
111 Conotoxin peptides  
PY 1999

L12 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2000 ACS  
TI Three-Dimensional Solution Structure of Conotoxin  $\psi$ -PIIE, an Acetylcholine Gated Ion Channel Antagonist  
PY 1998

L12 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2000 ACS  
 TI A Noncompetitive Peptide Inhibitor of the Nicotinic Acetylcholine Receptor from *Conus purpurascens* Venom  
 PY 1997

L12 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2000 ACS  
TI Conotoxins having acetylcholine receptor binding properties and their use in receptors assays and pharmaceuticals  
PY 1995

1995  
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L13 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2000 ACS  
T1 Conopeptides from *Conus striatus* and *Conus textile* by cDNA cloning  
PY 1999

L13 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2000 ACS  
TI Conotoxins having acetylcholine receptor binding properties and their use in receptors assays and pharmaceuticals  
PY 1995

199  
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L14 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2000 ACS  
TI Structure-function relationships of the NMDA receptor antagonist peptide, conantokin-R

PV 2000

L14 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2000 ACS  
TI In vitro and in vivo characterization of conantokin-R, a selective NMDA receptor antagonist isolated from the venom of the fish-hunting snail *Conus radiatus*  
PV 2000

L14 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2000 ACS  
TI Sequence and analysis of chromosome 2 of the plant *Arabidopsis thaliana*  
PV 1999

L14 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2000 ACS

AN 1998:719282 CAPLUS DN 130:511

TI Use of conantokins for producing analgesia or for neuroprotection

IN Saydoff, Joel

PA Cytotherapeutics, Inc., USA

PCT Int. Appl., 32 pp.

PATENT NO.

KIND	DATE	CODEN: PIXXD2 DT	Patent LA	English	FAN.CNT 1
WO 9848821	A2	19981105	WO 1998-US8195	19980424	

W: AL, AM, AT, AU, AZ, BA, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GN, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MM, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, ST, SV, TH, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, BG, BR, BU, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

US 5844077 A 19981201 US 1997-847848 19970428

AU 9871521 A1 19981124 AU 1998-71521 19980424

EP 979095 A2 20000216 EP 1998-918632 19980424

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

PRAI US 1997-847848 19970428

WO 1998-US8195 19980424

AB A method for producing analgesia or for neuroprotection in a mammal comprising administering a therapeutically effective amt. of a conantokin to the mammal. Conantokins may be administered intrathecally or i.v. The invention also provides novel methods and devices for neuroprotection against excitotoxicity mediated at least in part by NMDA receptors.

L14 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2000 ACS

AN 1998:87759 CAPLUS DN 128:167715

TI Preparation and anticonvulsant, neuroprotectant, and analgesic activity of conantokin peptide derivatives  
IN Abogadie, Fe C.; Cruz, Lourdes J.; Olivera, Baldomero M.; Walker, Craig; Colledge, Clark; Hillyard, David R.; Jimenez, Elsie; Layer, Richard T.; Zhou, Li-ming; Shen, Gregory S.; et al.

PA University of Utah Research Foundation, USA; Cognetix, Inc.

PCT Int. Appl., 122 pp.

PATENT NO.

KIND	DATE	CODEN: PIXXD2 DT	Patent LA	English FAN.CNT 1
WO 9803541	A1	19980129	WO 1997-US12618	19970721

W: AL, AM, AT, AU, AZ, BA, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MM, NO, NZ, PL, PT, RO, RU, SG, SI, SK, SL, ST, SV, TH, TR, TT, UA, UG, US, UZ, VN, YU, AM, AZ, BY, BG, BR, BU, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

RW: GH, KE, LS, MM, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BU, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

AU 9738861 A1 19980210 AU 1997-38861 19970721

EP 956292 A1 19991117 EP 1997-936111 19970721

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

PRAI US 1996-684742 19960722

WO 1997-US12618 19970721

OS MARKPAT 128:167715

AB The present invention is directed to conantokin peptides, conantokin peptide derivs. and conantokin peptide chimeras (X1)m-Gly-X2-X3-X4-(X5)n-(X6)p-(X7)q [X1 = Lys-Pro-Gly-Arg-Lys, Lys-Pro-Gly-Arg-Lys-Asn; X2-X4 = independently any amino acid; X5 = peptide contg. 1-7 amino acid residues; X6 = peptide contg. 1-4 amino acid residues; X7 = peptide contg. 1-12 amino acid residues; m, n, p, q = independently 0, 1, with the proviso that if m = 1 then n = p = q = 0], referred to

collectively as conantokins, having 10-30 amino acids, including preferably two or more  $\gamma$ -carboxyglutamic acid (Gla) residues. The conantokins are useful for the treatment of neurol. and psychiatric disorders, such as anticonvulsant agents, neuroprotective agents or analgesic agents. The sequence of sleeper-I peptide isolated from conus radiatus was identified as H-Gly-Glu-Gla-Gla-Val-Ala-Lys-Met-Ala-Ala-Gla-Leu-Ala-Arg-Gla-Asn-Ile-Ala-Lys-Gly-Cys-Lys-Val-Asn-Cys-Tyr-Pro-OH (Cys-Cys)-cyclic disulfide and designated as conantokin R (for radiatus). Isolation of DNA encoding conantokins is also described. A variety of conantokin R derivs. And chimeras were prepd. and tested for NMDA inhibitory activity using a spermine-stimulated [3H]MK-801 binding assay in female rats. Other conantokins, including conantokin R, were tested for anticonvulsant and antiparkinsonian activities, as well as biol. stability.

L14 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2000 ACS  
AN 1998:87626 CAPLUS DN 128:184656

TI Use of conantokins

IN McCabe, R. Tyler; Zhou, Li-ming; Layer, Richard T.

PA Cognetix, Inc., USA; McCabe, R. Tyler; Zhou, Li-Ming; Layer, Richard T.  
PCT Int. Appl., 122 pp. CODEN: P1XXD2 DT Patent LA English PAN.CNT 1  
PATENT NO. KIND DATE APPLICATION NO. DATE

WO 9803189 A1 19980129 WO 1997-US12652 19970721

W: AL, AM, AT, AU, AZ, BA, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MM, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, AM, AZ, BY, BG, KZ, MD, RU, TJ, TM, TG  
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BU, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG  
AU 9738864 A1 19980210 AU 1997-36864 19970721  
EP 964691 A1 19991222 EP 1997-936114 19970721

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

PRAI US 1996-684750 19960722

US 1996-762377 19961206

WO 1997-US12652 19970721

AB The present invention is directed to the use of conantokin peptides, conantokin peptide derivs. and conantokin peptide chimeras, referred to collectively as conantokins, having 10-30 amino acids, including preferably two or more  $\gamma$ -carboxyglutamic acid residues, for the treatment of neurol. and psychiatric disorders, such as anticonvulsant agents, neuroprotective agents or analgesic agents. Neurol. disorders and psychiatric disorders include epilepsy, convulsions, neurotoxic injury (assocd. with conditions of hypoxia, anoxia or ischemia which typically follows stroke, cerebrovascular accident, brain or spinal cord trauma, myocardial infarct, phys. trauma, drowning, suffocation, perinatal asphyxia, or hypoglycemic events), neurodegeneration (assocd. with Alzheimer's disease, senile dementia, Amyotrophic Lateral Sclerosis, Multiple Sclerosis, Parkinson's disease, Huntington's disease, Down's Syndrome, Korsakoff's disease, schizophrenia, AIDS dementia, multi-infarct dementia, Binswanger dementia and neuronal damage assocd. with uncontrolled seizures), chem. toxicity such as addiction, morphine tolerance, opiate tolerance and barbiturate tolerance), pain (acute, chronic, migraine), anxiety, major depression, manic-depressive illness, obsessive-compulsive disorder, schizophrenia and mood disorders (such as bipolar disorder, unipolar depression, dysthymia and seasonal effective disorder) and dystonia (movement disorder), sleep disorder, muscle relaxation and urinary incontinence. In addn., the conantokins are useful for treating HIV infection, ophthalmic indications and memory, learning or cognitive deficits.

L14 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2000 ACS

TI Cloning and expression of microbial thermostable phosphatase genes

PY 1997  
1998  
1999

L14 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2000 ACS

TI Sequence and RT-PCR expression analysis of two peroxidases from Arabidopsis thaliana belonging to a novel evolutionary branch of plant peroxidases

PY 1997

L14 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2000 ACS

TI Pyruvate carboxylase from Rhizobium etli: mutant characterization, nucleotide sequence, and physiological role  
PY 1996

L14 ANSWER 10 OF 11 CAPIUS COPYRIGHT 2000 ACS  
TI Conotoxins having acetylcholine receptor binding properties and their use in receptors assays and pharmaceuticals  
PY 1995  
1995  
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L14 ANSWER 11 OF 11 CAPIUS COPYRIGHT 2000 ACS  
AN 1993:208347 CAPIUS DN 118:208347  
TI Identification of two genes of Rhodobacter capsulatus coding for proteins homologous to the ND1 and 23 kDa subunits of the mitochondrial complex I

Dupuis, Alain

CS Lab. Biochim., Cent. Etud. Nucl. Grenoble, Grenoble, 38041, Fr.

SO FEBS Lett. (1992), 301(2), 215-18 CODEN: FEBIAL; ISSN: 0014-5793 DT Journal LA English

AB A region of the genome of R. capsulatus was sequenced and shown to encode proteins homologous to the ND1 subunit and the 23 kDa subunit of the mitochondrial NADH:CoQ oxidoreductase (Complex I). The assocn. of these 2 open reading frames in the R. capsulatus genome parallels the organization of the chloroplast genome. It suggests that genes encoding subunits of the NADH:CoQ oxidoreductase must be clustered in the genome of R. capsulatus.

L15 ANSWER 1 OF 1 CAPIUS COPYRIGHT 2000 ACS

TI Complete genome sequence of an aerobic hyper-thermophilic crenarchaeon, Aeropyrum pernix K1  
PY 1999

L17 ANSWER 1 OF 3 CAPIUS COPYRIGHT 2000 ACS  
TI Contulakin-G and analogs for therapeutic use  
PY 2000

L17 ANSWER 2 OF 3 CAPIUS COPYRIGHT 2000 ACS  
TI Contulakin-G, an O-glycosylated invertebrate neurotensin  
PY 1999

L17 ANSWER 3 OF 3 CAPIUS COPYRIGHT 2000 ACS  
AN 1995:494558 CAPIUS DN 123:50449

TI Conotoxins having acetylcholine receptor binding properties and their use in receptors assays and pharmaceuticals  
IN Olivera, Baldomero M.; Rivier, Jean E. F.; Cruz, Lourdes J.; Abogadie, Fe; Hopkins, Chris E.; Dykert, John; Torres, Josep.

PA Slt Institute for Biological Studies, USA; University of Utah Research Foundation  
SO PCT Int. Appl., 55 pp. CODEN: PIXXD2 DT Patent LA English PAN.CNT 7

PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 9501436 AI 19950112 WO 1994-US7194 19940627

W: AU, CA, JP, KR

RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE  
US 5432155 A 19950711 US 1993-84848 19930629

CA 2165566 AA 19950112 CA 1994-2165566 19940627  
AU 9471158 AI 19950124 AU 1994-71158 19940627  
AU 678837 B2 19970612  
EP 706566 AI 19960417 EP 1994-920316 19940627

R: AT, BE, CH, DE, DK, FR, GB, IT, LI, LU, NL, SE  
US 5700778 A 19971223 US 1995-458499 19950602

AU 9735197 A1 19971120  
AU 699078 B2 19981119

PRAI US 1993-84848 19930629  
WO 1994-US7194 19940627

OS MARPAT 123:50449

AB Substantially pure conotoxins are provided which inhibit synaptic transmissions at the neuromuscular junctions and which are useful both in vivo and in assays because they specifically target particular receptors, such as the acetylcholine receptor, and ion channels. The peptides are of such length that they can be made by chem. synthesis. The peptides may be used to analyze acetylcholine receptors and in pharmaceuticals (no data). Thirteen different conotoxins contg. 16-46 amino acids were prepd. by solid phase peptide synthesis and tested for biol. activity.

L18 ANSWER 1 OF 4 BIOSIS COPYRIGHT 2000 BIOSIS  
TI Contulakins: Potent, broad-spectrum analgesic conopeptides.  
PY 1999

L18 ANSWER 2 OF 4 BIOSIS COPYRIGHT 2000 BIOSIS  
TI Effect of neurotensin receptor agonist contulakin-G on dopamine release from rat striatal synaptosomes.  
PY 1999

L18 ANSWER 3 OF 4 BIOSIS COPYRIGHT 2000 BIOSIS  
TI In vitro and in vivo characterization of conantokin-R, a selective NMDA receptor antagonist isolated from the venom of the flash-hunting snail *Conus radiatus*.  
PY 2000

L18 ANSWER 4 OF 4 BIOSIS COPYRIGHT 2000 BIOSIS  
TI Contulakin-G, an O-glycosylated invertebrate neurotensin.  
PY 1999

L19 ANSWER 1 OF 5 USPATFULL  
PI US 5969096 19991019

L19 ANSWER 2 OF 5 USPATFULL  
PI US 5844077 19981201

L19 ANSWER 3 OF 5 USPATFULL  
PI US 5700778 19971223

L19 ANSWER 4 OF 5 USPATFULL  
PI US 5514774 19960507

L19 ANSWER 5 OF 5 USPATFULL  
PI US 5432155 19950711